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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

EDWARD TYGARD

Application No: 10/689,848 Art Unit: 3652
Filing Date: October 22, 2003 Examiner: J. Keenan
For: CLAMPING APPARATUS

DECLARATION UNDER 37 CFR 1.132

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Further to my declaration of October 26, 2007 in connection with this application, I would like to provide additional information concerning the commercial success of a clamping apparatus according to this invention. First, I would like to describe our current products in greater detail and compare those products to the claims of this application. Secondly, I would like to provide updated sales figures to show that our products described by this application continue to have excellent commercial success. Thirdly, I would like to show that the commercial success is not due to fads or promotions.

Characteristics of our products

As I set forth in my previous declarations of March 27, 2007 and October 26, 2007, Tygard Machine and Manufacturing Company, which is the assignee of this patent application, sells two models of clamping apparatus according to this invention under the name "The Tygard Claw". These are the Tygard Claw Model No. TC-600 F, which is designed for mounting on the front of a lift truck, and the Tygard Claw Model No. TC-600 S, which is designed for mounting on the side of a lift truck. These two models will collectively be referred to as the TC-600. Attachment A is a photocopy of the front page of an advertising brochure for the TC-600, showing a line drawing of the TC-600 S disposed above a load on a pallet. Attachment B is a photocopy of the back page of the brochure, showing line drawings of the TC-600 S and TC-600 F. Attachment C is a view of the TC-600 S shown in Attachment A with reference numbers attached. These drawings are accurate representations of the structure of the TC-600.

The reference numbers in Attachment C indicate the following parts:

- 10 - clamping apparatus
- 11 - frame
- 12 - clamping arms
- 13 - lever portion of clamping arm
- 14 - control rod
- 15 - contact portion
- 16 - rubber gripping pad
- 17 - mounting lugs

18 - hydraulic cylinders

19 - layer support rods (removable)

L - load

P - pallet

The clamping apparatus 10 (TC-600 S) shown in Attachment C has four clamping arm 12 which are pivotably mounted on the frame 11 for pivoting with respect to the frame 11 with a single degree of freedom. The clamping arms 12 can be pivoted on the frame 11 by hydraulic cylinders 18 which are supported atop the frame 11. Each clamping arm 12 is positioned on the frame 11 so as to be able to grasp one or more rectangular layers of items from a load L on a pallet P from four sides of the layer. Each clamping arm 12 includes a contact portion 15 for contacting a side of the layer to be lifted. Each contact portion 15 has a rubber gripping pad 16 and a pair of mounting lugs 17 which are pivotably mounted on the lower end of one of the clamping arms 12. Each clamping arm 12 includes two lever portions 13 and a control rod 14 extending alongside the lever portion 13. The upper ends of the lever portions 13 and the control rod 14 are pivotably connected to the frame 11, and the lower ends of the lever portions 13 and the control rod 14 are pivotably connected to the mounting lugs 17 of the contact portion 15. For each clamping arm 12, the lever portions 13, the control rod 14, the outer end of the frame 11, and the mounting lugs 17 define a four-bar linkage which adjusts the angle of the contact portion 15 with respect to the vertical as the clamping arm 12 pivots. When the control rod 14 has a certain length, the four-bar linkage is a parallel linkage, and the angle of the contact portion 15 with respect to the vertical remains essentially constant as the clamping arm 12 pivots.

As I set forth in my declaration of October 26, 2007, the separation between a pair of opposing contact portions of our clamping apparatus can be changed by any amount from 0 to 16 inches with virtually no change in the angle of the contact portions with respect to the vertical. The maximum and minimum separation between opposing contact portions depend upon the dimensions of the specific unit, but for all of our units, the minimum separation between opposing contact portions is at least 28 inches because 28 inches is the minimum dimensions of a typical load on a pallet. For all of our units, the separation between two opposing contact portions can be varied by at least 4 inches. In other words, it can be increased by at least 4 inches above the minimum separation.

Attachment D is a photograph of the TC-500, which is the old model of the Tygard Claw which we sold prior to 2003. The reference numbers in the photograph indicate the following parts:

- 20 - clamping apparatus
- 21 - frame
- 22 - clamping arms
- 25 - contact portion
- 26 - rubber gripping pad
- 28 - hydraulic cylinders
- 29 - layer support rods (removable)

Like the TC-600, the TC-500 had four clamping arm 22 which were pivotably mounted on the frame 21 for pivoting with respect to the frame 21 with a single degree of freedom. The clamping arms 22 could be pivoted on the frame 21 by hydraulic cylinders 28 which were supported atop the frame 21. Each clamping arm 22 was positioned on the frame 21 so as to

be able to grasp one or more rectangular layers of items from a load (not shown) on a pallet (not shown) from four sides of the layer. Each clamping arm 22 included a contact portion 25 for contacting a side of the layer to be lifted. Each contact portion 25 had a rubber gripping pad 26. Each contact portion 25 was either rigidly attached to the lower end of one of the clamping arms 22 or else was pivotably mounted on the lower end of one of the clamping arms 22 and biased by a spring to pivot towards a load. In the unit shown in Attachment D, the contact portions 25 were fixed to the lower ends of the clamping arms 22. The TC-500 did not include a four-bar linkage for controlling the angle of the contact portion 25. When the clamping arms 22 of the TC-500 were pivoted in a state in which the contact portions 25 were not contacting a load, the angle with respect to the vertical of each contact portion 25 changed by the same amount that the angle of the clamping arms 22 changed. The structure of the TC-500 was otherwise basically the same as that of the TC-600.

As I stated on page 5 of my declaration of October 26, 2007, the TC-500 had the same size, the same weight, the same lifting capacity, the same operating speed, and essentially the same price as the TC-600. The hydraulic system for the TC-600 is essentially the same as for the TC-500, and both models are controlled by an operator of a lift truck in the same way. The TC-600 is also painted with the same color scheme as the TC-500. As a result of these similarities, the TC-500 and the TC-600 are very similar in appearance. The differences between the two are probably not readily apparent to a casual observer.

Commercial success of the TC-600

We first sold the TC-600 in 2003, and it continues to enjoy excellent commercial success. The following table updates the table on page 8 of my declaration of March 27, 2007

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and shows annual sales figures for the TC-500 ("old design") for 2000 - 2002 and for the TC-600 ("new design") for 2003 - May of 2008. Sales figures are in terms of the number of purchased units shipped to customers each year. These figures do not include demo models lent to potential purchasers or units that have been ordered by a customer but not yet shipped.

SALES OF "TYGARD CLAW" FOR 2000 - 2008

Year	No. of units shipped to customers	Type of model old design = TC-500 new design = TC-600	approximate % of units sold to beer or grocery industries
2000	30	old design	37% (11 units)
2001	36	old design	44% (16 units)
2002	38	old design	47% (18 units)
2003	52	new design	23% (12 units)
2004	58	new design	31% (18 units)
2005	64	new design	50% (32 units)
2006	52	new design	35% (18 units)
2007	52	new design	42% (22 units)
2008 (Jan - May)	20	new design	50% (10 units)

As of the end of May 2008, 31 more units were on order in addition to the units which had been shipped. Of those units on order, approximately 32% were for use in the beer and grocery industries. As of the middle of July 2008, 40 units had been shipped and 20 more units were on order. I am confident that the number of units shipped in 2008 will easily exceed the total for 2007 and is fairly certain to exceed the total for 2005.

The table on page 8 of my declaration of March 27, 2007 showed sales figures in terms of the number of units sold for each year. In the above table, because the sales figures are expressed as the number of units shipped, this resulted in a change in the number of units for 2006 compared to the table in the declaration of March 27, 2007. The figures for 2000 - 2005 are the same in this table as in the table of the declaration of March 27, 2007.

The above table shows that the TC-600 continues to experience strong overall sales in its 6th year of production. The annual sales for 2003 - 2007 ranged from 37% to 68% higher than the highest annual sales for the TC-500.

When preparing my declaration of October 26, 2007, I was working from memory, and it was my recollection that we had not made any sales to the beer or grocery industry prior to the introduction of the TC-600 in 2003. Upon going over our sales records, I discovered that my memory was incorrect and that we in fact sold a number of our old clamping apparatus (the TC-500) to the beer and grocery industries prior to 2003. I have updated the above table to show the sales to the beer and grocery industries in 2000 - 2002.

Even though we did have sales in these two industries prior to 2003, those sales were limited to businesses which used primarily a single size of pallet for merchandise and which handled loads which all had the same dimensions. Businesses which employed a variety of pallet sizes for merchandise and which had loads of various sizes could not use the TC-500 satisfactorily.

Namely, in the case of the TC-500, when the clamping pads were fixed to the clamping arms like the unit shown in Attachment D, it was possible to pick up loads having certain fixed dimensions. However, if it was attempted to pick up a load having dimensions which differed from those fixed dimensions, the clamp could crease, dent, tear, or otherwise damage the sides of the load. Since most beer and grocery distributors need to handle loads of various sizes, the TC-500 with fixed clamping pads was not usable by most distributors. In units in which the clamping pads were pivoted on the lower ends of the clamping arms, the clamping pads were unstable and could sometimes drop a load if the clamping pads were not precisely positioned against the load. Therefore, neither design was satisfactory to most beer and grocery distributors.

Both of these problems were described in my declaration of March 27, 2007. As a result of these problems, the TC-500 could be used by beer or grocery distributors only under very limited circumstances. The TC-600 solves both of these problems of the TC-500 and can be successfully used by nearly all beer and grocery distributors.

Therefore, even though we did sell some of the TC-500 to the beer and grocery industries prior to 2003, the range of potential and actual users of our clamping apparatus has greatly expended with the introduction of the TC-600 in 2003.

Factors affecting the commercial success of the Tygard Claw

In the most recent Official Action, the Examiner suggested that the commercial success of the Tygard Claw might have been due to "lack of appreciation for the marketability of such a device in these particular industries". As I wrote on page 9 of my declaration of October 26, 2007, it is clear that there was an interest in providing a clamping apparatus for the beer industry over 30 years ago, as shown by U.S. Patent No. 4,252,496 which shows a hydraulic clamp for use in lifting cases of beer.

The Official Action also stated that the commercial success of the TC-600 might be due to factors such as incentives or other marketing strategies. However, our company provides no incentives to speak of which could be the cause of our increased sales. As I set forth on page 5 of my previous declaration, the price of TC-600 is substantially the same as the price of the TC-500. As set forth on page 11 of my declaration of March 27, 2007, the list price of the TC-600 is higher than that of the most similar model of our closest competitor. We offer very small discounts for purchase of multiple units and somewhat larger discounts to dealers who purchase a unit for resale. However, such discounts are standard in the industry, and our discount policy was the same for the TC-500 as for the TC-600. We do not offer any rebates (such as the rebates offered by automobile manufacturers). We do not give any promotional items given to potential customers before a sale. During on-site training which we provide a customer after he has purchased a new unit, we sometimes give the employees of the purchaser items of nominal value, such as baseball caps, t-shirts, or pocket knives. We have never paid kickbacks or bribes to obtain sales.

The Official Action also stated that the increased sales of the TC-600 could be due to the "newness factor" of the product. I do not believe that the TC-600 has ever had any "newness factor". Firstly, as I indicated above, the TC-600 is not readily distinguishable in appearance from the TC-500 which it replaced, and almost all of the properties (cost, dimensions, weight, capacity) are the same for the TC-600 as for the TC-500. In addition, the basic operation (the clamping apparatus is positioned over a load, the clamping arms grip the load, the clamping apparatus and the load are raised) is the same for the TC-600 and the TC-500. On account of these facts, I do not think that the TC-600 had sufficient "newness" to drive a sale, like a new model of car or a new style of cell phone. From what I know of our customers, the decision to purchase a Tygard Claw is a pure business decision based on whether the Tygard Claw enables them to move goods in a warehouse at a lower cost.

If purchasing a TC-600 were a fad due to its "newness", I would have expected sales to have dropped precipitously since the introduction of the TC-600 in 2003. However, annual sales have remained at a high level which as noted above have remained at least 37% higher than the highest annual sales for the TC-500.

Furthermore, if "newness" were a significant factor in driving sales, I would expect that many customers who purchased a unit would have abandoned use of the unit. However, I know of not a single customer who has stopped using any of our units after having purchased it, and we have a high rate of repeated purchases.

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In addition, the purchase of a Tygard Claw is not a trivial investment. The Tygard Claw is designed to be mountable on a standard forklift, and if a customer does not already have a spare forklift which is not needed for other purposes in his warehouse, he may need to purchase an additional forklift for use with the Tygard Claw. An example of the total cost to implement a new Tygard Claw was \$65,000 in the case of the Fred Nesbit Distributing Company. This included the cost of the Tygard Claw itself, the cost of a new forklift, and the cost of optional guide rails for guiding the forklift along the floor of a warehouse. A letter from the Fred Nesbit Distributing Company detailing these costs can be found on our web site at www.tygardlaw.com/applications.

Market share is difficult to know because I am not aware of any organization which keeps track of such statistics for layer pickers. However, based on conversations with our customers, we estimate that the TC-600 has approximately a 90 to 95 % market share of all layer pickers used in the soft drink industry and approximately a 85 to 90 % market share of all layer pickers used in the beer and grocery industries. In addition, we estimate that we have a 100 % share of layer pickers having pivoting arms in each of these industries. As I have noted before, we are a tiny company by any standard, so I consider these statistics quite remarkable and strong evidence of the novel advantages of the TC-600.

Conclusion

The facts which I set forth above can be summarized as follows:

- a. The TC-600 has the features described by the claims of the present invention. It includes a four-way linkage which is not present in our old model of the Tygard Claw (the TC-500).

b. As I set forth in my previous declaration of October 26, 2007, the greatly increased commercial success of the TC-600 compared to the TC-500 is clearly due to the presence of the four-way linkage in the TC-600.

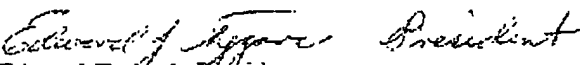
c. We have not provided any incentives to customers that could be the cause of the increased commercial success.

d. The TC-600 is so similar in overall appearance and features to the TC-500 that the commercial success of the TC-600 cannot be attributed to a "newness factor".

e. Others in the field besides my company were well aware of the potential for using a clamping apparatus in the beer and grocery industries at the time of my invention, but no one until this invention was able to develop a clamping apparatus capable of wide use in either field.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

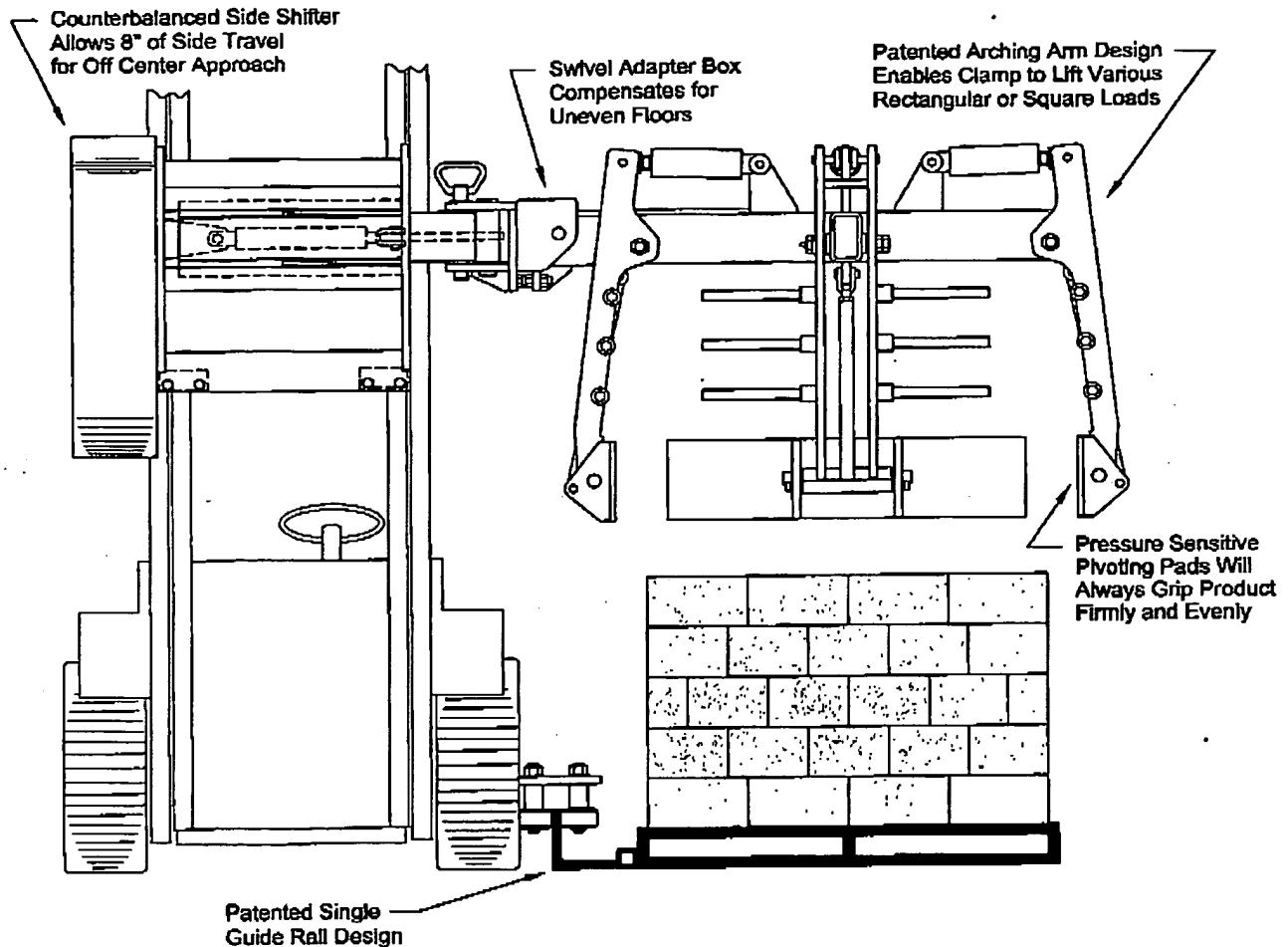
Respectfully submitted,


Edward Tygard, President
Tygard Machine & Manufacturing Company
Washington, Pennsylvania

Date: 7-21-08
Attachments: A - D

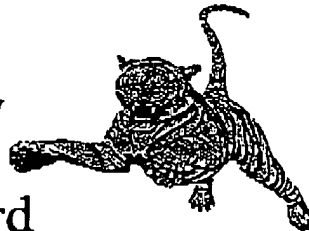
ATTACHMENT A

Introducing the *All New* TYGARD CLAW *Model TC-600 S*



A Revolutionary Four-Way Layer Lifting and Pallet Splitting Device

THE TYGARD CLAW
The One That Works



Tygard

Machine & Manufacturing Co.

300 Meadowlands Boulevard, Washington, Pa. 15301 USA

PHONE 724-746-4500 • FAX 724-746-5107

WEBSITE: www.Tygardclaw.com

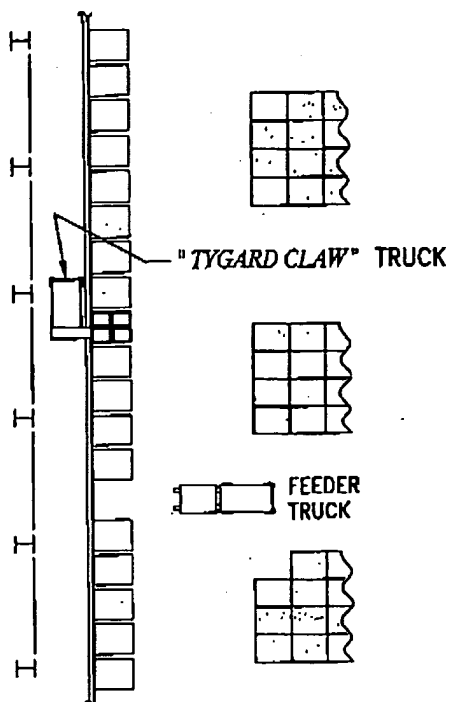
EMAIL: info@Tygardclaw.com

ATTACHMENT B

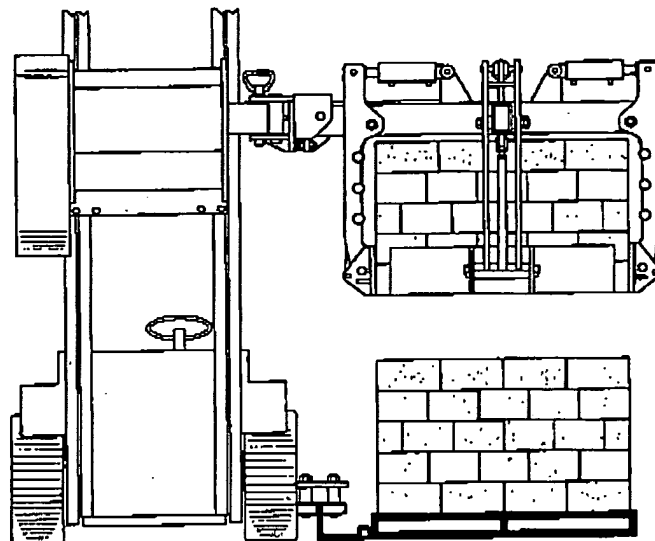
TYGARD CLAW

Model TC-600 S

(SIDE MOUNT)



Common Side-Mount
Warehouse Application



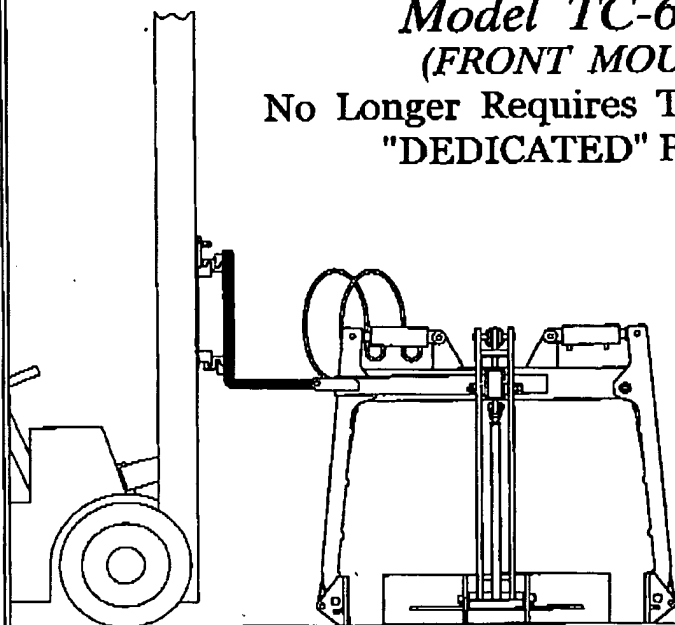
Introducing the All New

TYGARD CLAW

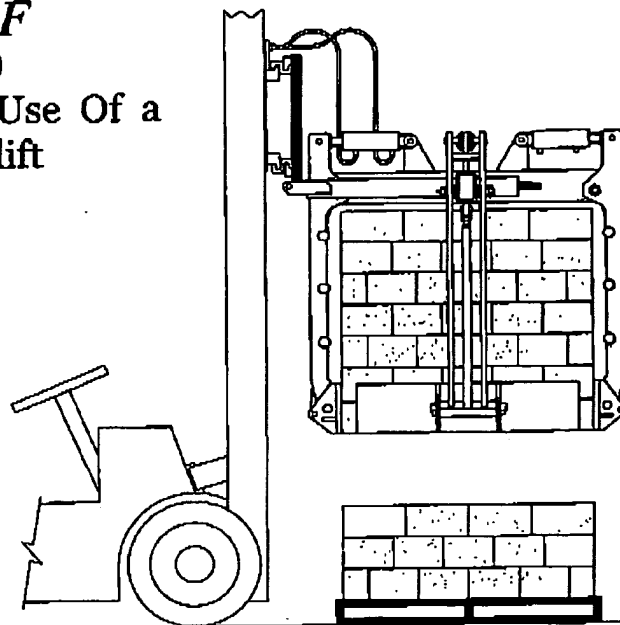
Model TC-600 F

(FRONT MOUNT)

No Longer Requires The Use Of a
"DEDICATED" Forklift



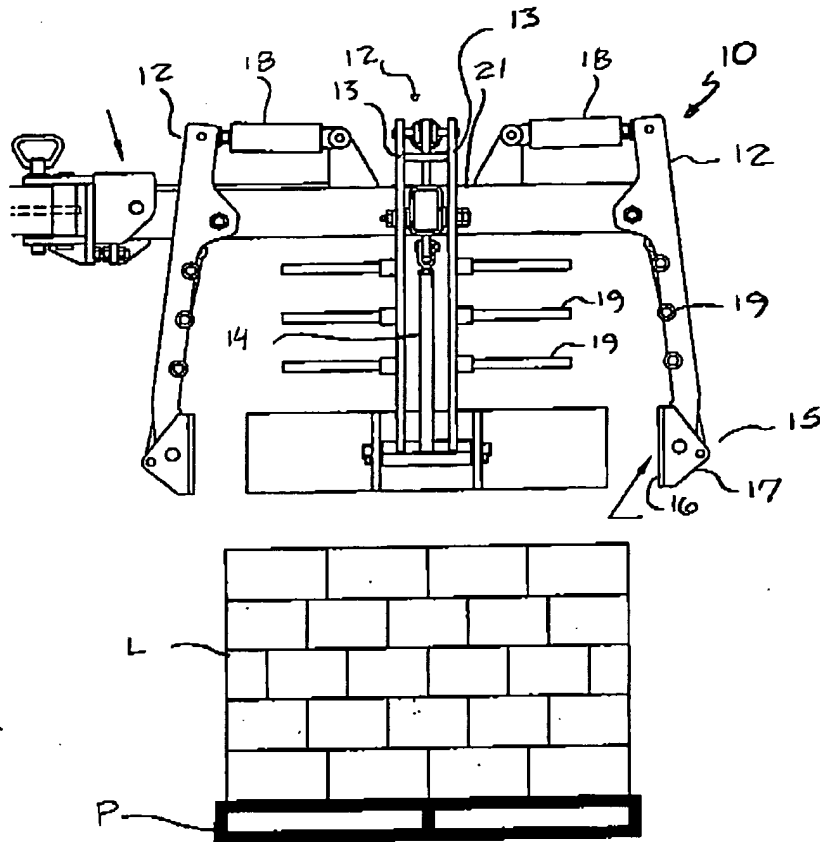
Easily Converts From This



To This " IN LESS THAN 2 MINUTES "

ATTACHMENT C

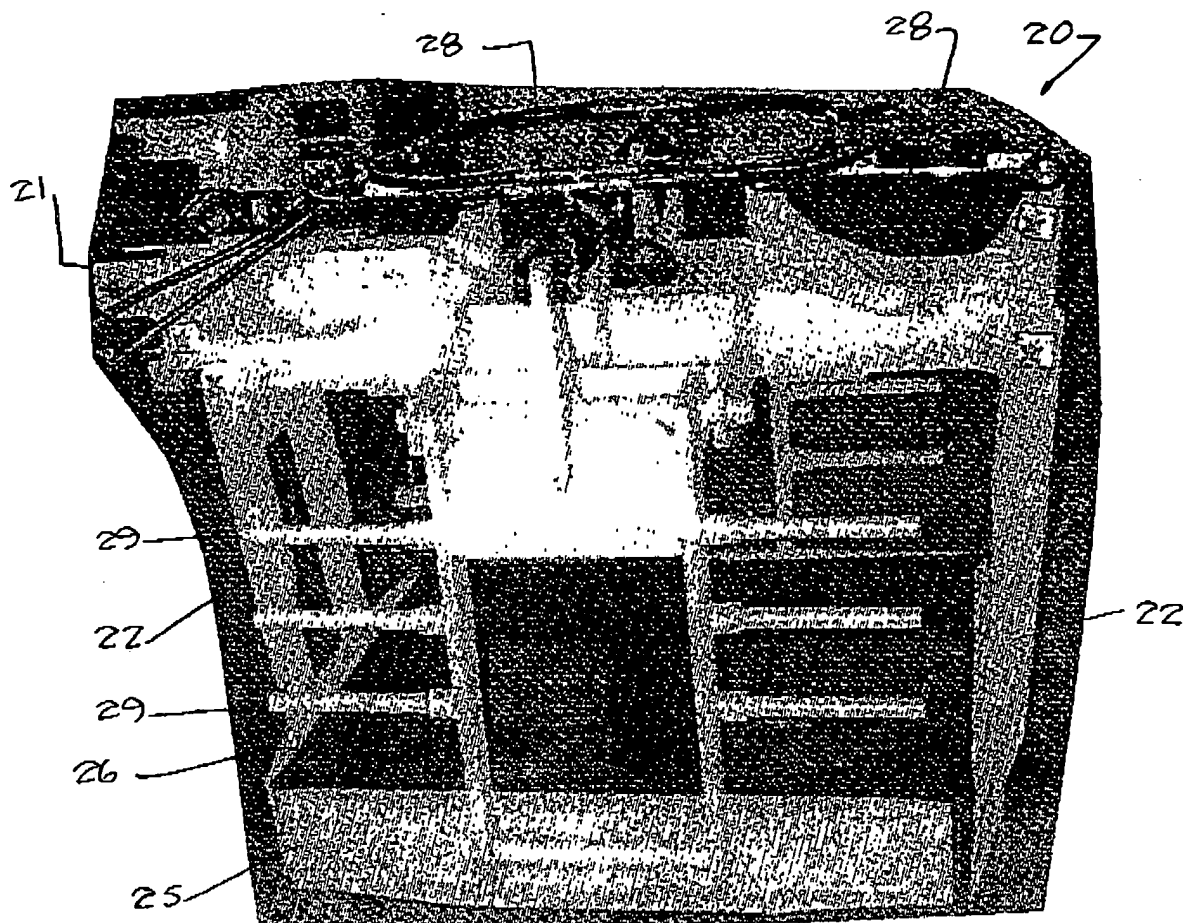
Enlarged view of TC-600



- 10 - clamping apparatus
- 11 - frame
- 12 - clamping arms
- 13 - lever portion of clamping arm
- 14 - control rod *15 contact portion*
- 16 - rubber pad
- 17 - mounting lugs
- 18 - hydraulic cylinders
- 19 - layer support rods
- L - load
- P - pallet

ATTACHMENT D

Photograph of the TC-500



- 20 - clamping apparatus
- 21 - frame
- 22 - clamping arms
- 25 - contact portion
- 26 - rubber pad
- 28 - hydraulic cylinders
- 29 - layer support rods